

1 Abstract

2 A data-driven, hierarchical information search and navigation system and method
3 enable search and navigation of sets of documents or other materials by certain common
4 attributes that characterize the materials. The invention includes several aspects of a data-
5 driven, hierarchical search and navigation system that employs this search and navigation
6 mode. The search and navigation system of the present invention includes features of an
7 navigation interface, a search interface, a knowledge base and a taxonomy definition
8 process and a classification process for generating the knowledge base, a graph-based
9 navigable data structure and method for generating the data structure, World Wide Web-
10 based applications of the system, and methods of implementing the system. Users are
11 able to search or browse a particular collection of documents by selecting desired values
12 for the attributes or by searching the attribute-value pairs. A data-driven, hierarchical
13 information search and navigation system and method enable this navigation mode by
14 associating terms with the materials, defining a set of hierarchical relationships among
15 the terms, providing a guided navigation mechanism based on the relationship between
16 the terms, and providing a search mechanism that can respond to free-text queries with
17 single-term or multi-term interpretations. In another aspect of the invention,
18 implementations of the invention may be scalable through parallel or distributed
19 computation.